Grain Transportation Report

A weekly publication of the
Transportation and Marketing Programs/Transportation Services Branch

Coordinator: Deen Olowolayemo (202) 690-1328 **www.ams.usda.gov/tmdtsb/grain**

March 25, 2004

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The next release is April 1, '04

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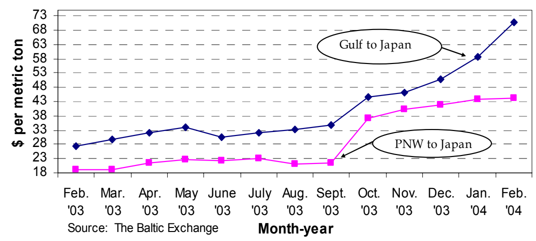
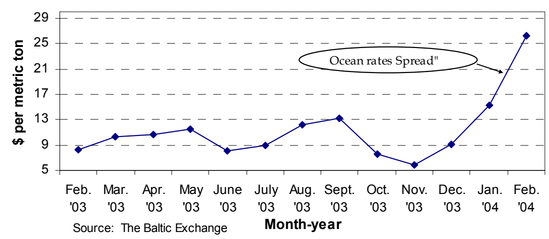
Figure 1--Monthly Ocean Freight Rates From U.S. Gulf to Japan and PNW to Japan



February Ocean Freight Rates Up. Ocean freight rates on two major grain routes were up in February, compared with the previous month (figure 1). The rates were also higher compared with the same period last year. The February 2004 ocean freight rate of $70.56 per metric ton (mt) for the U.S. Gulf to Japan (Gulf) and $44.31 per mt for the Pacific Northwest to Japan (PNW) routes were 21 and 2 percent higher than January, respectively. The Gulf rates increased 163 percent compared with February 2003, while the PNW rates increased 131 percent compared with the same period last year. While there have been increased orders for newly built vessels, the supply of dry bulk capacity or tonnage is expected to continue to fall short of demand. This is due to the global economic recovery, including strong global feed and industrial demand and record imports of iron ore by China. In 2003, China's crude steel production increased by 21.2 percent over 2002, and Chinese annual output exceeded the combined U.S. and Japan output for the first time.

Figure 2--Monthly Ocean Freight Rates "Spread" Between U.S. Gulf and PNW to Japan Routes



As "Spread" between Gulf and PNW to Japan Increases, Exports Down in Gulf and Up in PNW.
The "spread" which is the difference between ocean freight rates from the Gulf and PNW to Japan routes reached a record high during February (figure 2). The "spread" was recorded at $26.25 per mt for the month, a 72 percent increase from January and 220 percent increase from the same period a year ago. In general, the higher the "spread" the more attractive shipments of U.S grain from the PNW relative to the Gulf. During February, a total of 5.6 million mt of grain was inspected for export at the Gulf ports, down 25 percent from January, and 2 percent below the same period last year. However, 2.3 million mt of grain were inspected for export in the PNW, up 7.5 percent from January, and 24 percent compared with the same period last year. In February, a total of 8.3 million mt of grain was inspected from the United States, down 18 percent from January and up 2 percent from the same period a year ago. *Surajudeen.Olowlayemo@usda.gov*

Containerized Grain Shipment Becoming Competitive. As the ocean freight costs of shipping bulk grain and other commodities are rising, the cost of containerized shipment of grain is becoming increasingly competitive. The cost of shipping a 20 foot container of grain is $800-$1500. This is approximately $40-$75 per mt. During February, the ocean freight rate of shipping bulk grain from the Gulf to Japan was $70.56 per mt, and from the PNW to Japan the rate was $44.31 per mt. Approximately 148.4 thousand mt of grain was exported in containers from the United States to foreign destination in January. *Surajudeen.Olowolayemo@usda.gov*, *April.Taylor@usda.gov*

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Grain Transportation Indicators

For more information contact: Deen Olowolayemo (202) 690-1328

Table 1--Grain transport cost indicators*

Week ending	Truck	Rail	Barge	Ocean Gulf	Ocean Pacific
03/24/04	110	185	79	327	312
Compared with last week	↑	↓	↓	↓	↓

*Indicator: Base year 2000 = 100; Weekly updates include truck = diesel ($/gallon); rail = nearby secondary rail market ($/car); barge = spot Illinois River basis (index = percent of tariff rate); and ocean = routes to Japan ($/metric ton)

Source: Transportation & Marketing Programs/AMS/USDA

Table 2--Market update: U.S. origins to export position price spreads ($/bushel)

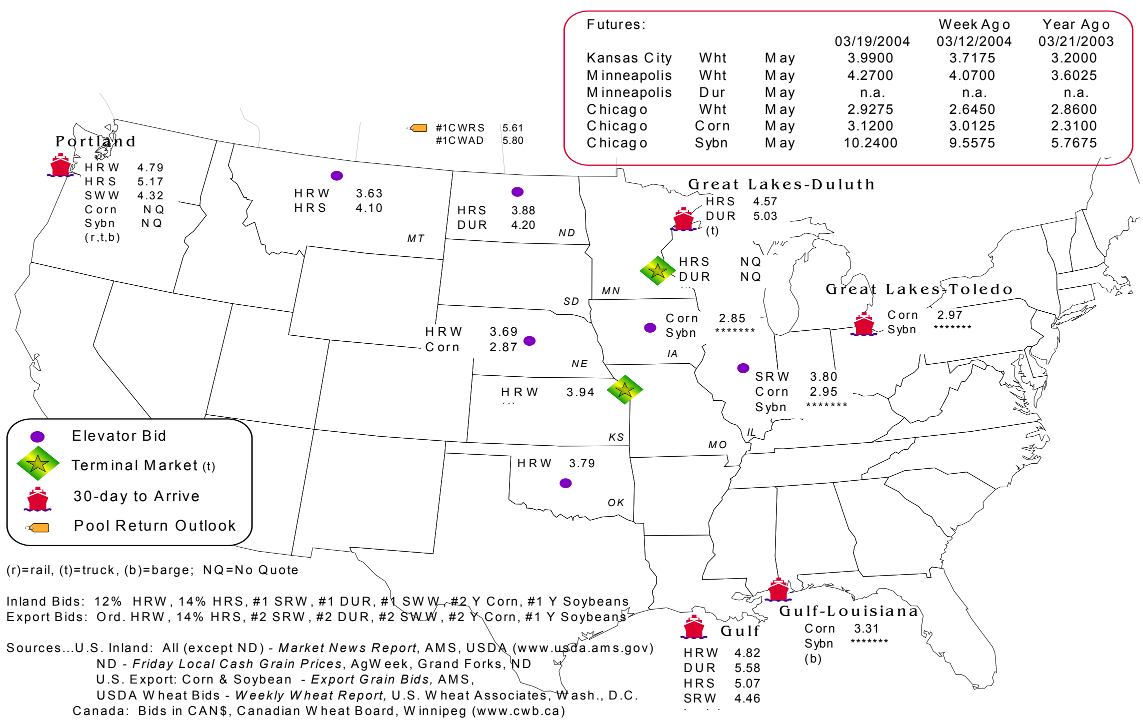
Commodity	Origin--destination	3/19/2004	3/12/2004
Corn	IL--Gulf	-0.36	-0.37
Corn	NE--Gulf	-0.44	-0.46
Soybean	IA--Gulf	n/a	-0.38
HRW	KS--Gulf	-0.88	-0.76
HRS	ND--Portland	-1.29	-1.13

Note: nq = no quote

Source: Transportation & Marketing Programs/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1
Grain bid summary



Rail

For more information contact: Marvin Prater (202) 690-6290 or Johnny Hill (202) 720-4211

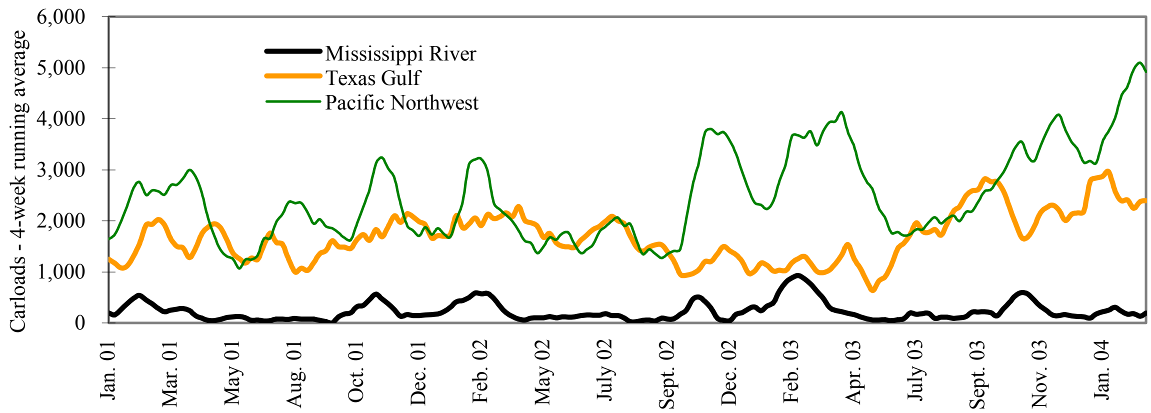
Table 3--Rail deliveries to port (carloads)*

Week ending	**Mississippi Gulf**	**Texas Gulf**	**Pacific Northwest**	**Atlantic & East Gulf**	**Total**
3/17/2004 p	311	2,019	4,625	406	7,361
3/10/2004 r	164	2,835	5,078	88	8,165
2004 YTD	2,312	28,062	47,359	3,205	80,938
2003 YTD	7,089	11,852	37,257	7,190	63,388
2004 as % of 2003	33	237	127	45	128
Total 2003**	14,934	88,118	150,530	20,509	274,091
Total 2002	10,937	84,625	111,832	20,842	228,236

(*) Incomplete Data; (**) Excludes 53rd week;YTD = year-to-date; p = preliminary data; r = revised data
Source: Transportation & Marketing Programs/AMS/USDA

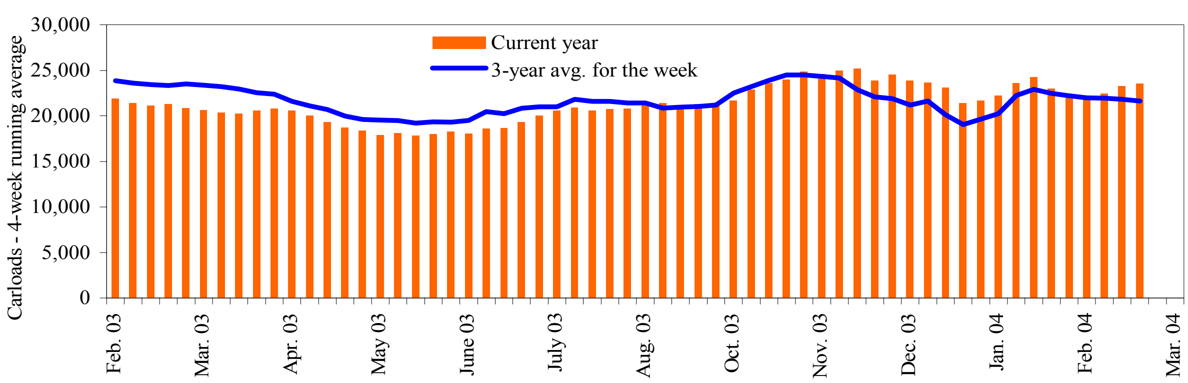
Railroads originate approximately 40 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 2
Rail deliveries to port



Source: Transportation & Marketing Programs/AMS/USDA

Figure 3
Total weekly U.S. grain car loadings for Class I railroads



Source: Association of American Railroads

Table 4--Class I rail carrier grain car bulletin (grain carloads originated)

	East		West			U.S. total	Canada	
Week ending	CSXT	NS	BNSF	KCS	UP		CN	CP
03/13/04	3,601	3,040	9,073	397	7,502	23,613	5,253	2,996
This week last year	3,188	2,996	7,493	340	6,571	20,588	3,381	3,442
2004 YTD	30,398	34,765	94,486	5,897	67,663	233,209	46,240	33,982
2003 YTD	29,783	32,540	79,202	3,569	66,038	211,132	32,949	33,638
2004 as % of 2003	102	107	119	165	102	110	140	101
Total 2003*	146,395	171,260	416,371	24,506	336,079	1,094,611	197,993	198,185

Source: Association of American Railroads (www.aar.org); YTD = year-to-date; * Excludes 53rd week

Table 5--Rail car auction offerings ($/car)*

Delivery for:	May-04	June 04
BNSF[1]		
COT/N. grain	no offer	no offer
COT/S. grain	no offer	no offer
UP[2]		
GCAS/Region 1	no offer	$51
GCAS/Region 2	no offer	$76

*Average premium/discount to tariff, last auction

[1]BNSF - COT = Certificate of Transportation

N includes: ID, MN, MT, ND, OR, SD, WA, WI, WY, and Manitoba, Canada.

S includes: ID, CO, IA, IL, KS, MO, NE, OK, TX, NM, AZ, CA, UT, and NV.

[2]UP - GCAS = Grain Car Allocation System

Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

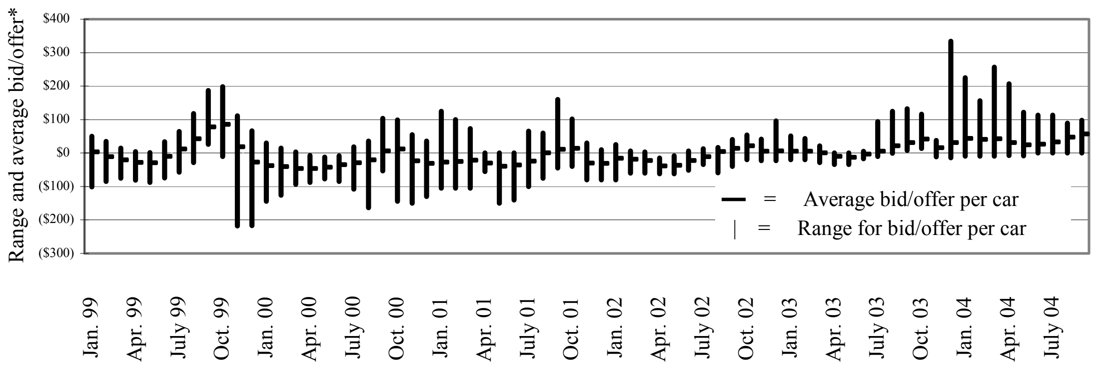
Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

Source: Transportation & Marketing Programs/AMS/USDA

Rail service may be ordered directly from the railroad via **auction** for guaranteed service or tariff for nonguaranteed service or through the secondary market.

The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4
Secondary rail car market, delivery month-year



*up to 6 months of trading
Source: Transportation & Marketing Programs/AMS/USDA

Average bid/offer is the simple average of all the weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

Range for bid/offer shows the range of average weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

Table 6--Weekly secondary rail car market ($/car)*

	Delivery period			
Week ending	**May-04**	**Jun-04**	**Jul-04**	**Aug- 04**
BNSF-GF				
3/19/2004	$58	$61	$60	$89
Change from last week	$12	$13	$6	$0
UP-Pool				
3/19/2004	$122	$83	$83	$92
Change from last week	$3	$0	$0	$0

*Average premium/discount to tariff, $/car-last week
Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,
Missing value = no bid quoted; GF = guaranteed freight; Pool = guaranteed pool
Sources: Transportation and Marketing Programs/AMS/USDA
Data from Atwood/ConAgra, Harvest States Co-op, James B. Joiner Co., Tradewest Brokerage Co.

Table 7--Tariff rail rates for unit and shuttle train shipments*

Effective date: 3/1/2004	**Origin**	**Destination**	**Rate/car**	**Rate/metric ton**	**Rate/bushel****
Unit train*					
Wheat	Minneapolis, MN	Houston, TX	$2,020	$22.27	$0.61
	Kansas City, MO	Galveston, TX	$1,820	$20.06	$0.55
	Minneapolis, MN	Portland, OR	$4,148	$45.72	$1.24
	St. Louis, MO	Houston, TX	$1,945	$21.44	$0.58
	Kansas City, MO	Laredo, TX	$2,280	$25.13	$0.68
	Chicago, IL	Albany, NY	$1,834	$20.22	$0.55
	Chicago, IL	Richmond, VA	$1,961	$21.62	$0.59
Corn	Minneapolis, MN	Portland, OR	$3,240	$35.71	$0.91
	Chicago, IL	Baton Rouge, LA	$2,736	$30.16	$0.77
	Council Bluffs, IA	Baton Rouge, LA	$2,170	$23.92	$0.61
	Evansville, IN	Raleigh, NC	$1,841	$20.29	$0.52
	Council,Bluffs, IA	Stockton, CA	$3,496	$38.54	$0.98
	Kansas City	Dalhart, TX	$1,745	$19.24	$0.49
	Columbus, OH	Raleigh, NC	$1,750	$19.29	$0.49
	Des Moines, IA	Laredo, TX	$2,930	$32.30	$0.82
Soybeans	Minneapolis, MN	Portland, OR	$3,310	$36.49	$0.99
	Chicago, IL	Baton Rouge, LA	$2,736	$30.16	$0.82
	Council Bluffs, IA	Baton Rouge, LA	$2,799	$30.85	$0.84
	Des Moines, IA	Laredo, TX	$2,930	$32.30	$0.88
	Evansville, IN	Raleigh, NC	$1,841	$20.29	$0.55
	Chicago, IL	Raleigh, NC	$2,441	$26.91	$0.73
Shuttle train*					
Wheat	St. Louis, MO	Houston, TX	$1,750	$19.29	$0.53
	Minneapolis, MN	Portland, OR	$3,993	$44.01	$1.20
Corn	Fremont, NE	Houston, TX	$2,425	$26.73	$0.68
	Minneapolis, MN	Portland, OR	$3,090	$34.06	$0.87
Soybeans	Council Bluffs, IA	Houston, TX	$2,425	$26.73	$0.68
	Minneapolis, MN	Portland, OR	$3,110	$34.28	$0.87

*A unit train refers to shipments of at least 52 cars. Shuttle train rates are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

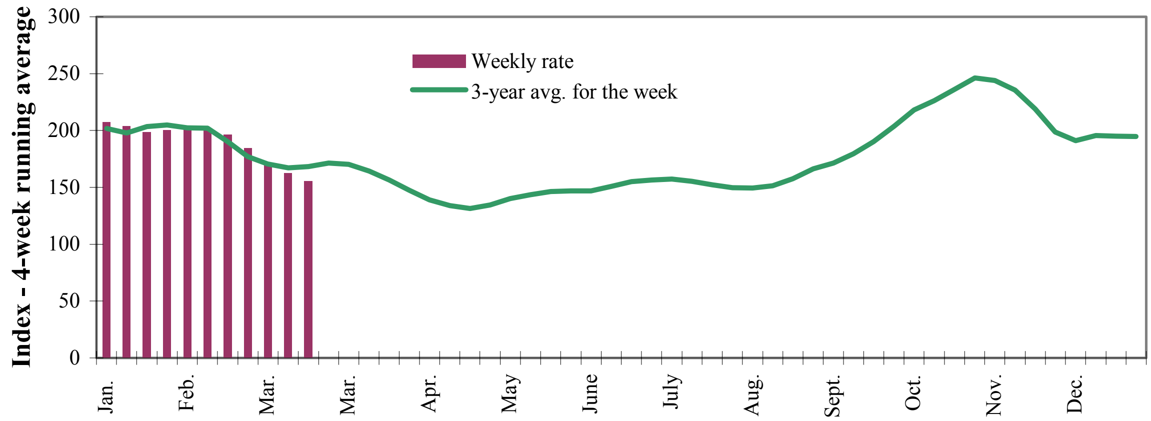
**Approximate load per car = 100 short tons: corn 56 lbs./bu., wheat & soybeans 60 lbs./bu.

Sources: www.bnsf.com, www.cpr.ca, www.csx.com, www.uprr.com

Barge Transportation

For more information contact: Nick Marathon (202) 690-0331 or Deen Olowolayemo (202) 690-1328

Figure 5
Illinois River barge rate index - quotes



Note: Index = percent of tariff rate
Source: Transportation & Marketing Programs/AMS/USDA

The **Illinois River barge rate index** averaged 183 percent of the **benchmark tariff rates** between 1999 and 2001, based on weekly market quotes. The **index**, along with **rate quotes** and **futures market** bids are indicators of grain transport supply and demand.

Table 8--Barge rate quotes: southbound barge freight

Location	3/17/2004	3/10/2004	April '04	June '04
Twin Cities	0	0	189	189
Mid-Mississippi	165	0	163	163
Illinois River	151	149	150	155
St. Louis	124	127	123	129
Lower Ohio	121	122	125	133
Cairo-Memphis	112	114	117	122

Index = percent of tariff, based on 1976 tariff benchmark rate
Source: Transportation & Marketing Programs/AMS/USDA

Calculating barge rate per ton:
(Index * 1976 tariff benchmark rate per ton)/100

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map (see figure 6).

Figure 6
Benchmark tariff rates

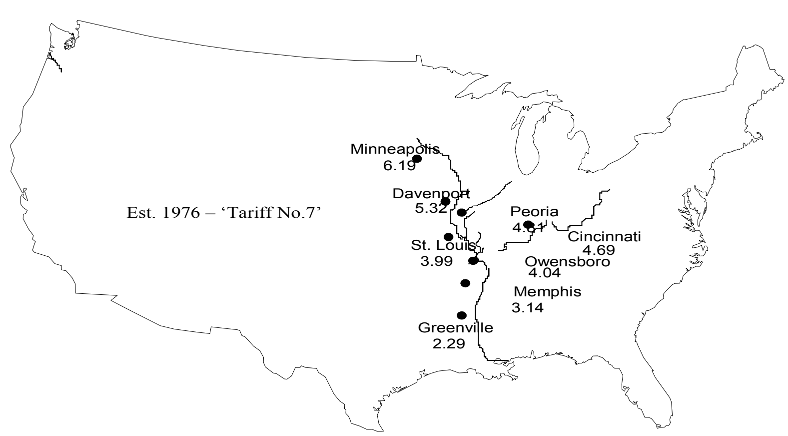


Table 9--Barge futures market (US$)*

Week ending	River/region	Contract period	Index rate Futures	Index rate Cash
3/23/2004	St. Louis	Apr.	n/a	130
		June	n/a	140
		Aug.	n/a	160
		Oct.	n/a	230
		Dec.	n/a	155
	Illinois River	Apr.	n/a	145
		June	n/a	155
		Aug.	n/a	175
		Oct.	n/a	253
		Dec.	n/a	175

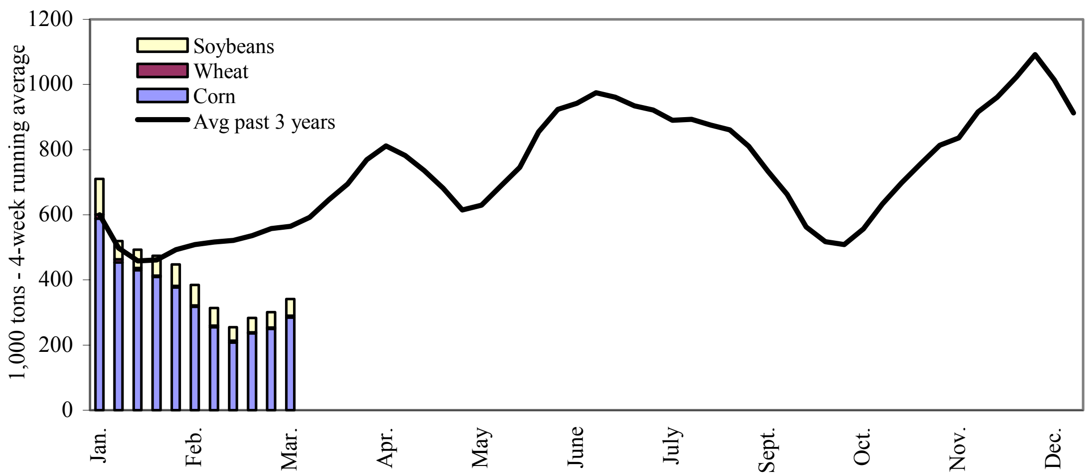
*Southbound barge freight nominal/cash basis values (US$)

Note: Index = percent of tariff, based on 1976 tariff benchmark rate

Source: Merchants Exchange of St. Louis (www.merchants-exchange.com)

Figure 7

Barge movements on the Mississippi River (Lock 27 - Granite City, IL)



Source: Transportation & Marketing Programs/AMS/USDA

Table 10--Barge grain movements (1,000 tons)

Week ending 03/13/04	Corn	Wheat	Soybean	Total
Mississippi River				
Rock Island, IL (L15)	0	0	0	0
Winfield, MO (L25)	0	0	0	0
Alton, IL (L26)	287	11	60	358
Granite City, IL (L27)	313	11	56	380
Illinois River (L8)	257	1	60	318
Ohio River (L52)	117	16	37	183
Arkansas River (L1)	0	30	1	31
2004 YTD	4,715	503	1,478	6,934
2003 YTD	4,747	399	2,468	7,894
2004 as % of 2003 YTD	99	126	60	88
Total 2003	29,898	2,787	9,146	42,526

YTD (year-to-date) and calendar year total includes Miss/27, Ohio/52, and Ark/1.

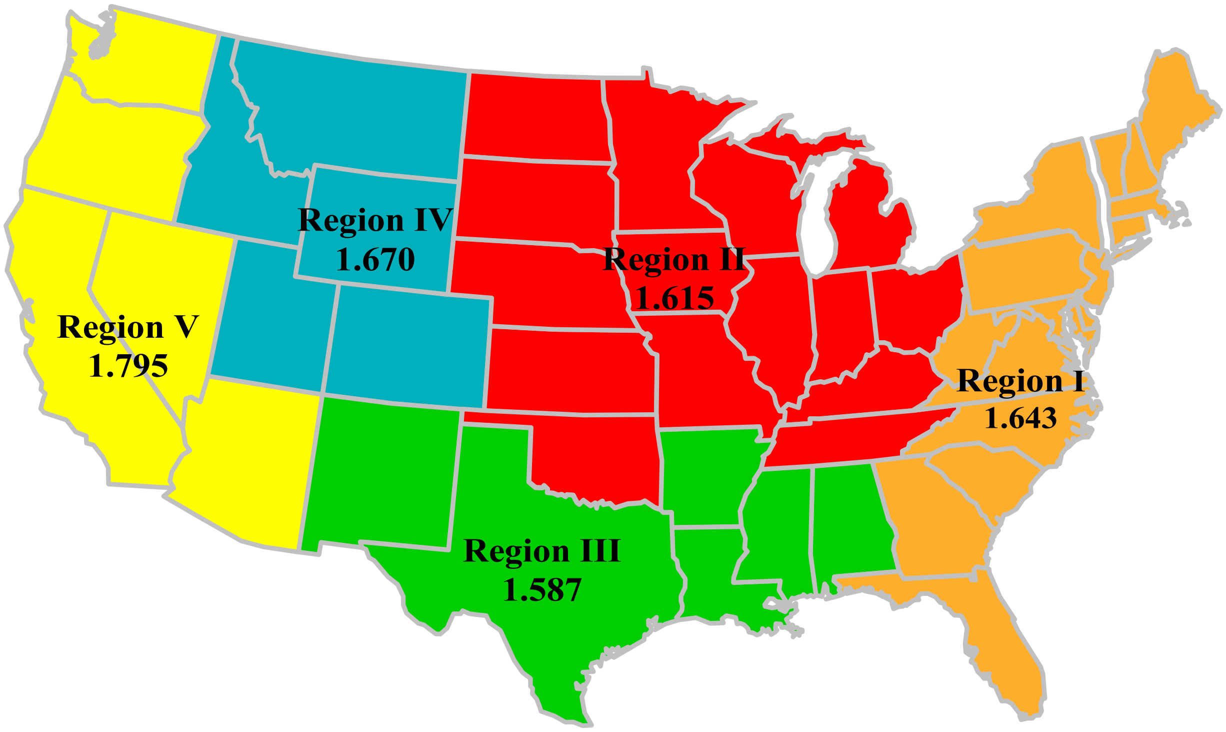
Source: U.S. Army Corp of Engineers (www.mvr.usace.army.mil/mvrimi/omni/webrpts/default.asp)

Truck Transportation

For more information contact: Karla Martin (202) 720-8264

Figure 8

Retail on-highway diesel prices (US$/gallon), week ending 03/22/04



Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

The weekly **diesel price** provides a proxy for trends in U.S. truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37 percent of the estimated variable cost.

Table 11--Retail on-highway diesel prices*, week ending 03/22/04 (US$/gallon)

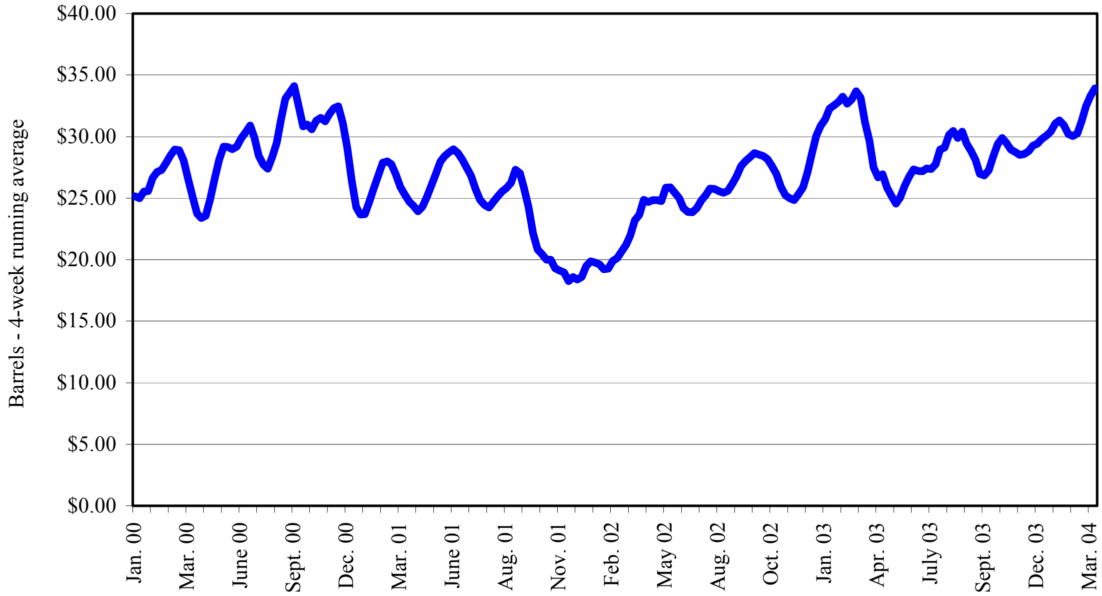
			Change from	
Region	**Location**	**Price**	**Week ago**	**Year ago**
I	East Coast	1.643	-0.015	-0.181
	New England	1.760	-0.006	-0.235
	Central Atlantic	1.736	-0.009	-0.218
	Lower Atlantic	1.593	-0.018	-0.161
II	Midwest	1.615	-0.006	-0.126
III	Gulf Coast	1.587	-0.009	-0.118
IV	Rocky Mountain	1.670	0.013	-0.144
V	West Coast	1.795	-0.044	-0.078
	California	1.854	-0.053	0.005
Total	U.S.	1.641	-0.011	-0.135

*Diesel fuel prices include all taxes.

Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

Figure 9

Weekly Brent crude price, Friday close (US$/barrel)



Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

Crude oil price is an indicator in future diesel price trends.

Light sweet crude is exchanged on the New York Mercantile Exchange. **Brent Crude**, a blend of North Sea oils, is traded on the International Petroleum Exchange in London.

Table 12--Crude oil prices* (US$/barrel)

	3/22/2004	3/15/2004	% Change
Light Sweet Crude (NYMEX)	36.51	36.28	0.62
Brent Crude	n/a	n/a	n/a

*U.S. refiner crude acquisition cost, composite domestic & import; n/a = data not available

Source: U.S. Department of Energy/U.S. Department of Energy (www.eia.doe.gov)

Grain Exports

For more information contact: Johnny Hill (202) 720-4211

Table 13--U.S. unshipped export balances (1,000 metric tons)

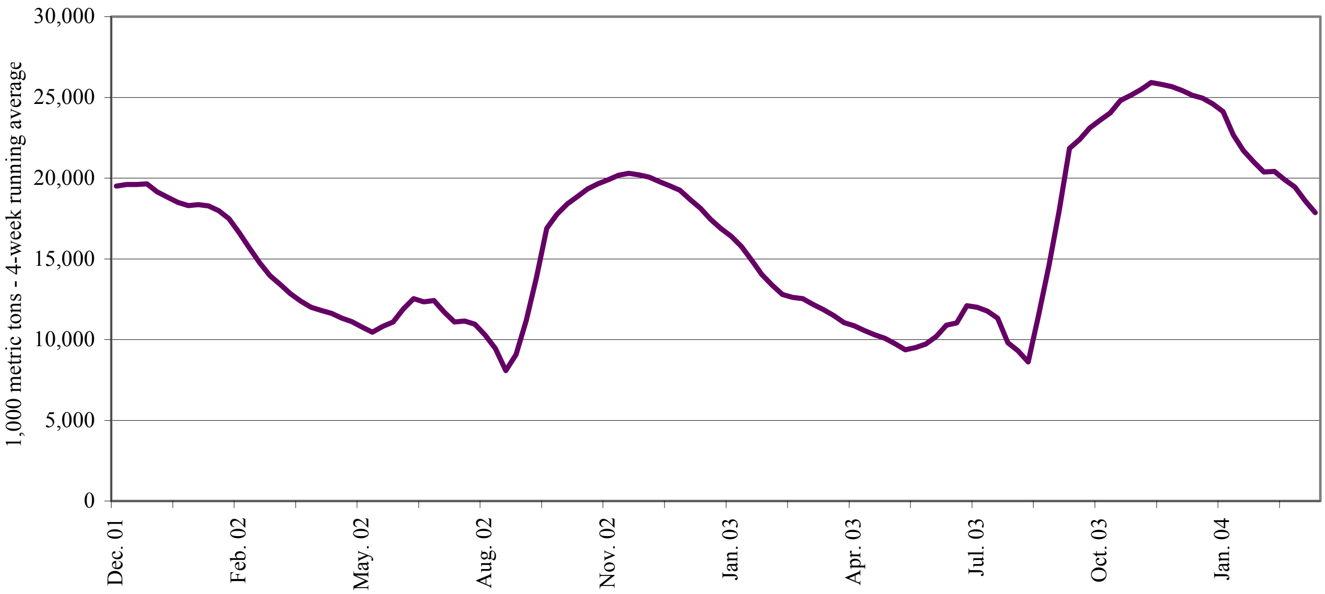
	Wheat						Corn	Soybeans	Total
Week ending	HRW	SRW	HRS	SWW	DUR	All wheat			
3/11/2004	2,191	837	1,309	909	142	5,388	8,707	2,525	16,620
This week year ago	1,074	360	1,163	500	128	3,224	6,013	3,371	12,608
Commulative exports-crop year									
2003/04 YTD	9,997	2,970	5,225	3,928	833	22,952	25,998	20,538	69,488
2002/03 YTD	5,660	2,353	5,198	2,850	601	16,601	21,231	22,246	60,078
2003/04 as % of 2002/03	177	126	101	138	139	138	122	92	116
2002/03 Total	6,896	2,899	6,645	3,517	720	20,677	39,646	28,908	89,231
2001/02 Total	8,704	5,485	5,554	3,127	1,133	24,003	47,460	29,838	101,301

Note: YTD = year-to-date. Crop year: wheat = 6/01-5/31, corn & soybeans = 9/01-8/31

Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

Figure 10

U.S. grain, unshipped export balance, including wheat, corn, and soybean sales



Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

Table 14--Select U.S. port regions - grain inspections for export (1,000 metric tons)

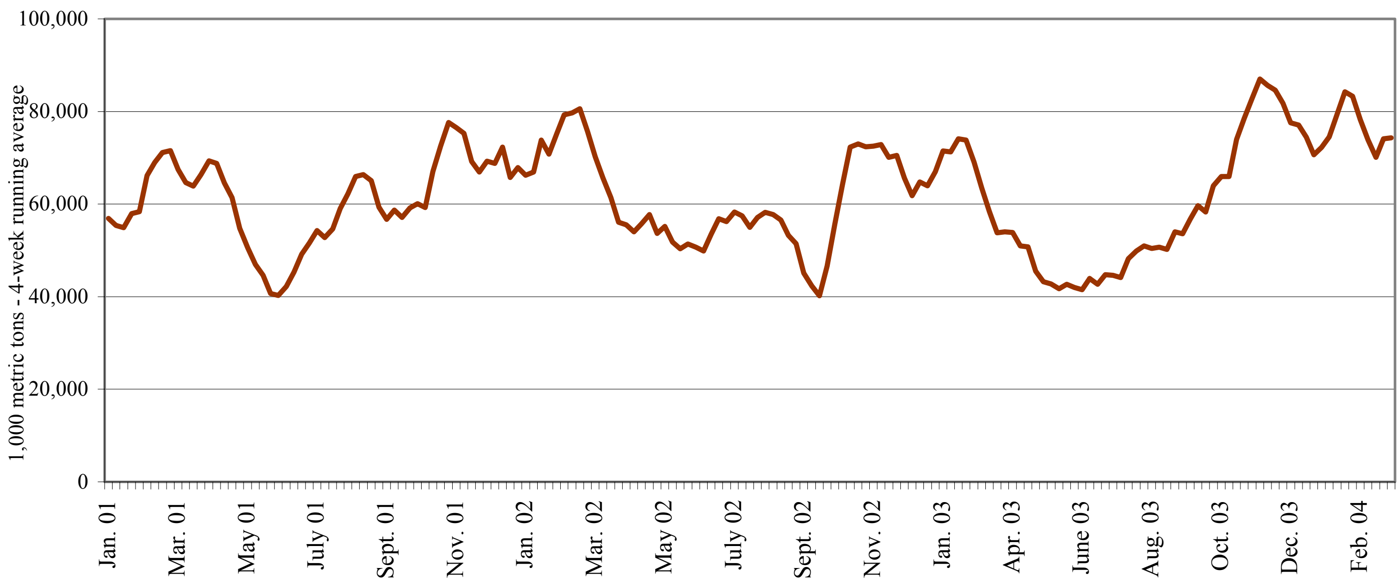
	Pacific Region			Mississippi Gulf			Texas Gulf			Port Region total		
Week ending	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Pacific	Mississippi	Texas
03/18/04	138	212	60	80	819	248	182	0	0	409	1,146	182
2004 YTD	2,742	2,130	1,484	1,678	8,440	4,727	2,604	44	7	6,355	14,845	2,654
2003 YTD	1,765	1,269	1,754	1,101	5,842	7,413	932	526	45	4,788	14,357	1,503
2004 as % of 2003	155	168	85	152	144	64	279	8	16	133	103	177
2003 Total	8,764	5,450	5,114	5,855	30,352	18,972	7,032	746	103	19,328	55,179	7,880

Source: Federal Grain Inspection Service/USDA (www.usda.gov/gipsa); YTD: year-to-date

The United States exports approximately one-quarter of the grain it produces. On average, it includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Over 60 percent of these U.S. export grain shipments departed through the Mississippi Gulf region in 2003.

Figure 11

U.S. grain inspected for export, including wheat, corn, and soybeans



Source: Federal Grain Inspection Service/USDA (www.usda.gov/gipsa)

Ocean Transportation

For more information contact: Deen Olowolayemo (202) 690-1328 (ocean freight rates) or April Taylor (202) 690-1326 (container rates)

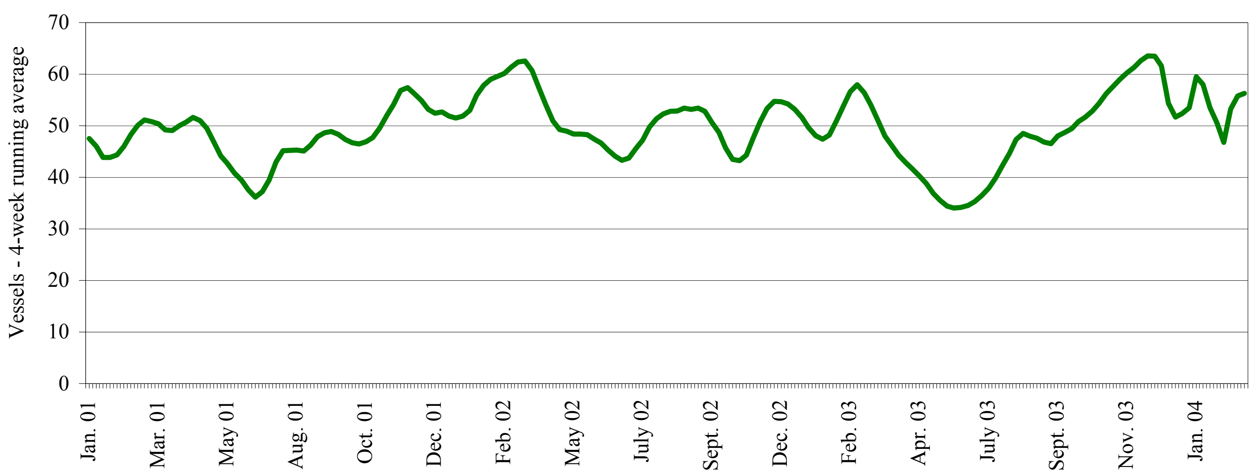
Table 15--Weekly port region grain ocean vessel activity (number of vessels)

	Gulf			Pacific Northwest	Vancouver B.C.
Date	In port	Loaded 7-days	Due next 10-days	In port	In port
3/18/2004	18	51	55	12	7
3/11/2004	22	56	65	8	3
2003 range	(11..47)	(30..76)	(39..93)	(3..13)	(1..15)
2003 avg.	31	49	62	9	6

Source: Transportation & Marketing Programs/AMS/USDA

Figure 12

Gulf Port grain vessel loading (past 7 days)



Source: Transportation & Marketing Programs/AMS/USDA

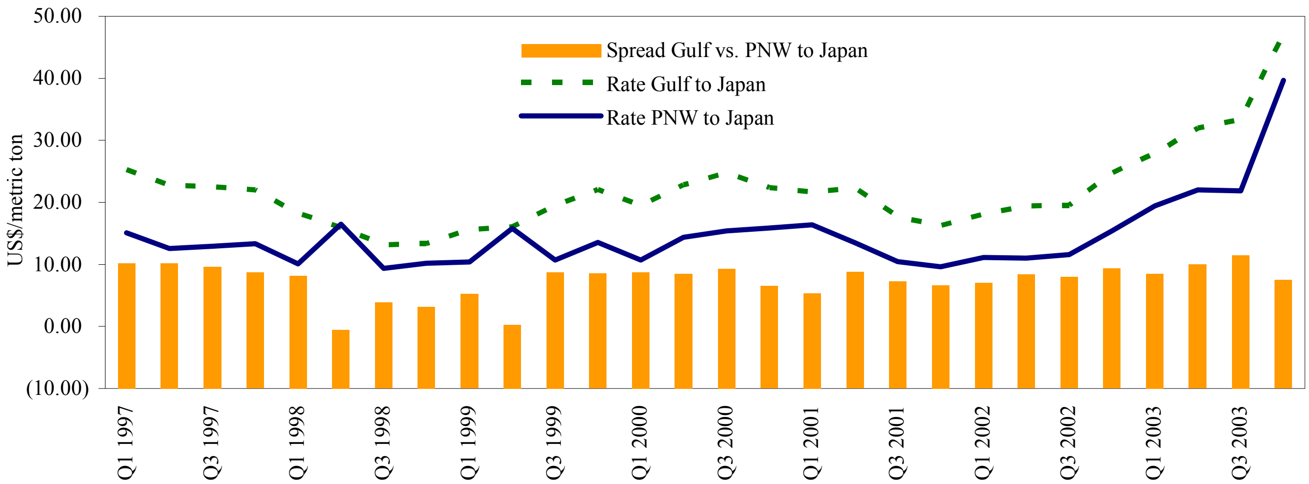
Table 16--Quarterly ocean freight rates (average rates & percentage changes) (US$/metric ton)

Countries/ regions	2003 4th qtr	2002 4th qtr	Percent change	Countries/ regions	2003 4th qtr	2002 4th qtr	Percent change
Gulf to				**Pacific NW to**			
Japan	$41.83	$24.75	69	Japan	---	$15.39	---
Taiwan	$44.00	---	---				
N. Europe	---	$18.07	---	**Argentina/Brazil to**			
N. Africa	$35.00	$18.33	91	Med. Sea	$33.38	$22.00	75
Med. Sea	$31.75	---	---	N. Europe	---	$22.63	---

Source: Maritime Research, Inc. (www.maritime-research.com)

Figure 13

Grain vessel rates, U.S. to Japan



Source: Baltic Exchange (www.balticexchange.com)

Table 17--Ocean freight rates for selected shipments, week ending 03/20/04

Export region	Import region	Grain	Month	Volume loads (metric tons)	Freight rate ($/metric ton)
U.S. Gulf	Haiti*	Wheat Bgged	Apr 25/26	2,690	105.00
U.S. Gulf	Taiwan	Hvy grain	Mar. 10/20	56,000	68.00
U.S. Gulf	Nicaragua	Wheat	Mar 1/10	12,290	69.00
U.S. Gulf	Japan	Hvy grain	Apr 1/10	54,000	72.50
U.S. Gulf	Japan	Hvy grain	Mar. 10/20	54,000	75.00
U.S. Gulf	Egypt Med	Hvy grain	Mar 18/25	55,000	46.50
River plate	Italy	Grains	Mar 18/30	25,000	70.00
River plate	Tunisia	Grains	Mar. 10/20	22,000	72.00
Argentina	Algeria	Wheat	Mar. 15/22	25,000	59.00

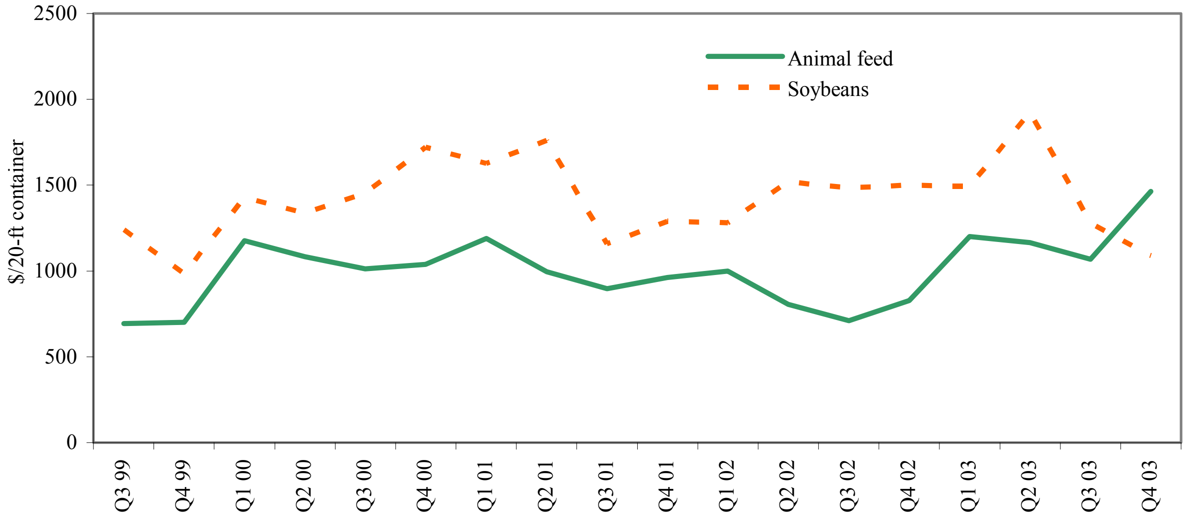
Rates shown are for metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicates; op = option

*Most food aid from the United States is required to be shipped on U.S. flag vessels. The vessels are limited in availability resulting in higher rates. In addition, destinations receiving food aid generally lack adequate port unloading facilities, requiring the vessel to remain in port for a longer duration than normal.

Source: Maritime Research Inc. (www.maritime-research.com)

Figure 14

Weighted average rates[1] for containerized shipments of animal feed and soybeans to selected Asian countries



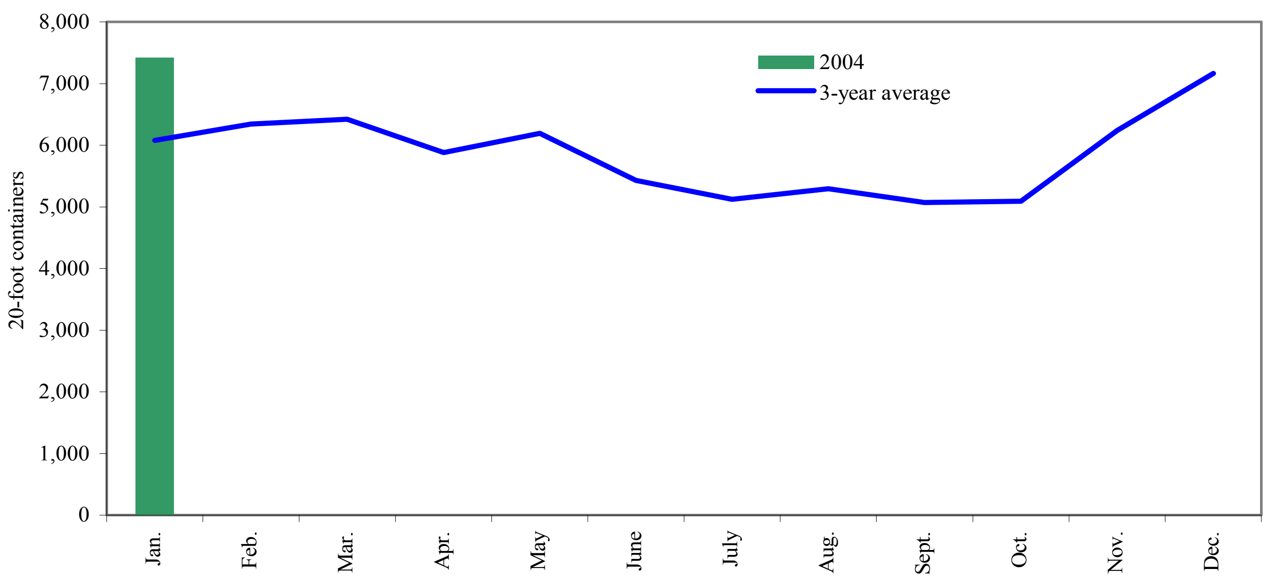
[1]Animal Feed: Bangkok-Thailand (4%), Busan-Korea (24%), Hong Kong (14%), Keelung-Taiwan (14%), Tokyo-Japan (44%), and soybeans: Bangkok-Thailand (3%), Busan-Korea (7%), Hong Kong (1%), Keelung-Taiwan (24%), Tokyo-Japan (65%) January-December 2003.

Source: Ocean Rate Bulletin, Transportation & Marketing Programs/AMS/USDA

Container ocean freight rates – average rate per twenty-foot equivalent unit (TEU) weighted by shipping line market share and trade route.

Figure 15

Monthly shipments of containerized grain for 2004 compared with a 3-year average



Note: PIERS data is available with a lag of approximately 40 days

Source: Port Import Export Reporting Service (PIERS), *Journal of Commerce*, January 2004